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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,106	10/23/2003	Jodie L. Reynolds	60316/3	6565

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EXAMINER	
WONG, ALLEN C	

ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/692,106	REYNOLDS ET AL.	
	Examiner	Art Unit	
	Allen Wong	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *election 3/8/07*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-64* is/are pending in the application.

4a) Of the above claim(s) *26,29,30,56,59 and 60* is/are withdrawn from consideration.

5)☒ Claim(s) *27 and 57* is/are allowed.

6)☒ Claim(s) *1-24,28,31-54,58 and 61-64* is/are rejected.

7)☒ Claim(s) *25 and 55* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of election of Group I (1-25, 27, 31-55, 57 and 61-64) in the reply filed on 3/8/07 is acknowledged. The traversal is on the ground(s) that Group II should be considered together with Group I. The examiner agrees that claims 28 and 58 of Group II should be considered together with Group I. However, claims from Group III (Claims 26 and 56) and Group IV (claims 29, 30, 59 and 60) are withdrawn and cancelled, since the applicant only argued the reasons for examining claims from Groups I and II together. Thus, claims 1-25, 27, 28, 31-55, 57, 58 and 61-64 are pending and will be examined as set forth below.

The requirement is still deemed proper and is therefore made **FINAL**.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.
>
> When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in

memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim 61 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 61 defines *a computer program product on a computer readable medium* embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed *a computer program product on a computer readable medium* can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the preamble of the claim to disclose "a computer-readable medium encoded with computer executable instructions, comprising:" in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.
>
> ... a signal does not fall within one of the four statutory classes of Sec. 101.
>
> ... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Claim 63 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 63 define *a computer data signal embodied in a transmission medium* with descriptive material. While "functional descriptive material" may be claimed as a statutory product (i.e., a "manufacture") when embodied on a tangible computer readable medium, *a computer data signal embodied in a transmission medium* embodying that same functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated

by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-24, 28, 31-54, 58 and 61-63 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 7,295,608.

Claims 1, 31 and 62 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,295,608. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of the instant application is generic to all that is recited in claim 1 of US Patent No. 7,295,608. Claims 1, 31 and 62 of the instant application discloses "obtaining a media signal to be communicated to a destination system", "...a plurality of scenes within the media signal", "automatically selecting different codecs from a codec library to respectively compress at least two of the scenes, wherein the codecs are automatically selected to produce a highest compression quality for the respective scenes according to a set of criteria without exceeding a target data rate", "compressing the scenes using the automatically selected codecs", and "delivering the compressed scenes to the destination system with an indication of which codec was

used to compress each scene". Claim 1 of U.S. Patent No. 7,295,608 discloses "obtaining a media signal to be communicated to a destination agent", "the media signal being separated into a plurality of segments…", "automatically selecting the CODEC that produces the highest quality encoded output for the segment according to a set of criteria without exceeding a bandwidth constraint", "wherein at least two segments are encoded using different CODECs", and "delivering the segment encoded using the selected CODEC to the destination agent… reporting to the destination agent which CODEC was used to encode the segment". In the U.S. Patent No. 7,295,608, the term "segment" is synonymous with "scene", and the term "destination agent" is synonymous with "destination system", and the term "without exceeding a bandwidth constraint" is very similar to "without exceeding a target data rate" since video bandwidth is related with target data rates. That is, claims 1, 31 and 62 is anticipated by claim 1 of US Patent No. 7,295,608.

Claim 2 and 32 of the instant application is similar to claim 10 of US Patent No. 7,295,608. Claim 3 and 33 of the instant application is similar to claim 10 of US Patent No. 7,295,608. Claim 4 and 34 of the instant application is similar to claim 10 of US Patent No. 7,295,608. Claim 5 and 35 of the instant application is similar to claim 3 of US Patent No. 7,295,608. Claim 6 and 36 of the instant application is similar to claim 6 of US Patent No. 7,295,608, wherein temporal characteristics pertain to motion characteristics and spatial characteristics pertain to color characteristics. Claim 7 and 37 of the instant application is similar to claim 4 of US Patent No. 7,295,608. Claims 8-9 and 38-39 of the instant application is similar to claim 5 of US Patent No. 7,295,608.

Claim 10 and 40 of the instant application is similar to claim 1 of US Patent No. 7,295,608. Claim 11 and 41 of the instant application is similar to claim 7 of US Patent No. 7,295,608. Claims 12-13 and 42-43 of the instant application is similar to claim 8 of US Patent No. 7,295,608. Claim 14 and 44 of the instant application is similar to claim 3 of US Patent No. 7,295,608. Claim 15-17 and 45-47 of the instant application is similar to claim 9 of US Patent No. 7,295,608, in that bandwidth constraints are adjusted by changing the data target rate. Claim 18 and 48 of the instant application is similar to claim 3 of US Patent No. 7,295,608. Claim 19 and 49 of the instant application is similar to claim 1 of US Patent No. 7,295,608. Claim 20 and 50 of the instant application is similar to claim 3 of US Patent No. 7,295,608. Claim 21 and 51 of the instant application discloses "scene change" is detected is similar to claim 2 of US Patent No. 7,295,608, in that the "association between one or more identified characteristics of the segment (ie.scene)" is made or the scene change associating the scene is made. Claim 22 and 52 of the instant application discloses is similar to claim 2 of US Patent No. 7,295,608, in that "scene change" is detected and the "association between one or more identified characteristics of the segment (ie.scene)" is made or the scene change associating the scene is made. Claim 23 and 53 of the instant application is similar to claim 11 of US Patent No. 7,295,608. Claim 24 and 54 of the instant application is similar to claim 12 of US Patent No. 7,295,608. Claims 28 and 58 of the instant application is similar to claim 1 of US Patent No. 7,295,608. That is, claims 28 and 58 is anticipated by claim 1 of US Patent No. 7,295,608, as similarly explained above for claims 1 and 31 of the instant application. Also, claim 61 of the

instant application is similar to claim 1 of US Patent No. 7,295,608, in that claim 61 requires a computer readable medium. Claim 63 of the instant application is similar to claim 1 of US Patent No. 7,295,608, in that claim 63 requires the use of computer.

Claim 64 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,295,608 in view of Puri (6,968,006).

Claim 64 of the instant application is similar to claim 1 of US Patent No. 7,295,608. Patent '608 does not disclose decompressing each compressed scene with the indicated codec, and presenting the decompressed scenes to a user. However, it would have been obvious to one of ordinary skilled to acknowledge that the Patent '608 does report data and the corresponding codec to the receiving terminal for display, otherwise compression of data would be obsolete if there was no decompressor (ie. decoder) to undo the compression process for permitting the user to view video data. Puri teaches the well known concept of decompressing data (fig.16b, element 1714 and 1716, col.20, ln.39-40 and 57-62, note decompression of data is done), and presenting the decompressed scenes to a user of the destination system (fig.16b, element 1730, col.21, ln.15, user views the data decompressed). Thus, it would have been obvious to combine Puri's well known teaching of a decoder to decompress data with Patent '608 for permitting the high quality display of video data at the output for viewing at the user's end, while robustly minimizing the requirements of encoding and decoding circuitry (Puri col.3, ln.39-45).

Allowable Subject Matter

1. Claims 25 and 55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

2. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not specifically disclose wherein at least one codec in the library has an associated licensing cost, and wherein selecting further comprises automatically selecting the codec having the least licensing cost in response to two or more codecs producing substantially the same quality of compressed output for a scene.

Claims 27 and 57 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not specifically disclose claim 27: a media compression method comprising: providing a library of codecs, at least one codec having an associated licensing cost; obtaining a media signal to be communicated to a destination system; identifying a plurality of scenes within the media signal; automatically selecting different codecs from the codec library to respectively compress at least two of the scenes, wherein the codecs are automatically selected to produce a highest compression quality at the lowest licensing cost for the respective scenes according to a set of criteria without exceeding a target data rate; compressing the scenes using the automatically selected codecs; and delivering the compressed

scenes to the destination system with an indication of which codec was used to compress each scene. Claim 57 is patentable for similar reasons as claim 27.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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